

# Nature's Field

An Electronic Journal for NSP Distributors

## Milk Thistle

*Silybum marianus*

By Steven H. Horne

My introduction to milk thistle was made “down-under” while attending an NSP Australia convention. NSP Australia was carrying a product called St. Mary’s thistle (another name for milk thistle) before the US introduced the product. An Australian naturopath told me how wonderful the remedy was for protecting the liver. He was using it to protect a swim team against the chlorine and chemicals in the pool and it had improved the athletic performance of every member of the team.

Milk thistle has been in use in Europe for hundreds of years. Both the leaves and the seeds have been used. Its traditional uses include jaundice, constipation, lack of bile flow, gallstones and dry, scaly skin. It was also used traditionally to treat depression, a condition that was associated with liver problems in traditional Western medicine. The leaves have also been used as a bitter digestive and liver tonic, and to stimulate production of breast milk.

Milk thistle has great “signatures” for its uses. Its spiny, thistle nature shows its ability to protect. It has an almost “hostile” feeling, which makes one think of the anger and irritability associated with liver energy. The leaves have milk white markings, which give it the “signature” of being good for lactating women. Its other name, Saint Mary’s Thistle, comes from an association of these white markings with the Virgin Mary’s milk. It is interesting that two closely related plants, blessed thistle and artichoke also have hepatoprotective and liver cleansing effects; they just aren’t as strong as milk thistle.

So, while milk thistle isn’t the only hepatoprotective herb out there, it is the strongest one we know about and has the most research validating its usefulness. Milk thistle seeds, the part used in modern herbalism, contain a group of compounds (flavonolignans) collectively called silymarin. Silymarin contains compounds like silybin, silychristin, silydianin and isosilybin. It is these compounds that appear to give milk thistle its primary liver benefits. The seeds contain 1.5% to 3% of these compounds, and the industry standard is to selectively extract these compounds to concentrate them rather than use the whole herb.



Photo by Stephen Foster

NSP uses a standardized extract that is 80% silymarin.

Silymarin has been shown to bind with cellular membranes in the liver and protect them from chemicals and toxins. Examples of compounds milk thistle will protect the liver from include alcohol, tetracycline, acetaminophen, thallium, erythromycin, amitriptyline and carbon tetrachloride. It can also reduce side effects from chemotherapy. It appears to act by binding to cell membranes to keep them from absorbing toxins. It is used in hospitals in Europe to treat poisoning from Amanita (death cap) mushrooms.

Silymarin also raises glutathione levels in the liver and scavenges free radicals, thus supporting liver detoxification. It lowers blood cholesterol, increases bile flow and enhances immune function. Milk thistle improves survival rates for people with cirrhosis of the liver and is very effective for hepatitis and liver damage. It can actually help reverse liver damage. It takes about one to two months of use to start reversing liver damage, and as long as 6-12 months for cases of chronic hepatitis.

The herb is extremely safe with almost no negative effects other than the fact it may act as a mild laxative in some or cause other “cleansing” reactions. In fact, milk thistle was once grown as a vegetable in Europe. The leaves were cooked as a pot herb and the flowers eaten in a manner similar to artichokes.

Besides being sold as a single herb, milk thistle is also found in Super Antioxidant, Cellu-Smooth, Enviro-Detox, Milk Thistle Combination and GreenZone.

### Selected References

*The Encyclopedia of Medicinal Plants* by Andrew Chevallier  
*Herbal Therapy and Supplements* by Merrily A. Kuhn and David Winston  
*PDR for Herbal Medicines* by Medical Economics Press

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# The “Low-Down” on Liver Detoxification

by Steven H. Horne, RH (AHG)

About one month ago, I got a spasm in my hip. It wasn't the first time this had happened to me. I have experienced the same problem several times during the past couple of years. At first, I thought I had just strained a muscle working in the garden, but on further reflection, it seemed like this was more than just muscle strain. I mentioned the problem to Kim, who called me back the next day and told me she had a feeling it might be some kind of toxicity—a heavy metal, perhaps. Because I have found Kim's impressions to be accurate most of the time, I started taking Heavy Metal Detox and N-Acetyl-Cysteine.

The next day, I had my regularly scheduled appointment with my chiropractor (I see him twice a month for health maintenance). The clinic I go to doesn't do just chiropractic. They do muscle testing, color therapy, sound therapy, laser therapy, nutritional counseling, homeopathics and mental/emotional healing work. They also have rife machines for energy balancing and foot spas for detoxing. I mentioned Kim's hunch to my holistic chiropractor, Dr. Lyman, who muscle tested me. To his surprise, the cause didn't come up as structural, just as Kim had suggested. With further muscle testing, he determined I had a heavy metal (thallium) in my prostate which was being released and causing muscle spasms in my pelvis. Since my prostate had bothered me every time I'd had the pelvic spasms, the connection made sense to me.

He gave me a dose of homeopathic thallium, had his assistant use the laser on me to “program” my body to release the thallium. The assistant told me that she hated doing thallium detox because she always got “cotton-mouth” when she was doing it. That was interesting, because I'd been waking up with “cotton-mouth” for over a week (and had experienced the same “cotton-mouth” when I'd had this problem before).

After the laser, I did a foot bath detox where I passed lots of black flecks (which are a sign of heavy metals). At home, I continued the homeopathic thallium, Heavy Metal Detox, Milk Thistle Combination and N-Acetyl-Cysteine. My pelvis was better in record time.

I have long felt that the biggest health problem we face in the 21st century is environmental toxicity (see page 8). I don't know where or how I got thallium in my system, but everyday, we are all exposed to chemicals (including heavy metals) that our body must find a way to get rid of. The primary organ responsible

for this is the liver and for some time I've been interested in learning more about how the liver detoxifies these chemicals. So, this month's topic was an excuse to spend some time doing the research. As a result, I have a much better understanding of how the body detoxifies and a new-found appreciation for some of our “non-herbal” supplements such as the N-Acetyl-Cysteine, Indole-3-Carbinol, SAM-e and Alpha Lipoic Acid. And, of course, I'd like to share my discoveries with you.

Just one word of caution before we begin, don't let any of the chemical terms in this article scare you away from the topic. Just pay attention to the key ideas, which are:

1. The body has to enzymatically process toxins in order to eliminate them.
2. These enzymatic conversions take place primarily in the liver, but also take place in other tissues.
3. There are two phases to this process, phase one and phase two. In phase one, toxins are electrically charged and in phase

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two, the electrically-charged toxins are attached to a nutrient so they can be flushed from the body.

4. There are six methods the body has for neutralizing toxins in phase two. Each of these systems process different kinds of toxins.

5. Various nutrients are required as co-factors to make this detoxification process work. Specific nutrients enhance phase one detoxification, and there are also specific nutrients that enhance each of the six detoxification pathways in phase two.

6. Free radicals are generated in the process of detoxification, which have to be neutralized, so antioxidants are critical to the process. These free radicals generated by the detoxification process are probably responsible for the “cleansing reactions” or “healing crisis” some people experience when seeking to improve their health.

That’s the whole process in a nutshell. The details are provided to give you clues as to how you might be able to help people who have been exposed to specific kinds of toxins. This can help guide your muscle testing, intuition or experimentation when trying to help someone get any kind of chemical out of the body.

### The Remarkable Liver

While every cell in the body has some detoxification capability, the primary place where detoxification occurs is in the liver. Liver enzymes process irritating substances that get into the system so they can be eliminated. The liver not only handles environmental pollutants, it also breaks down metabolic by-products, waste from infectious organisms and any drugs we might take. Certain fat-soluble toxins also get stored in body fat, so when we lose weight, fast or exercise, these toxins can be released for processing, giving the liver more work to do. In

addition, the liver also breaks down the “active constituents” like alkaloids that are present in our herbal remedies.

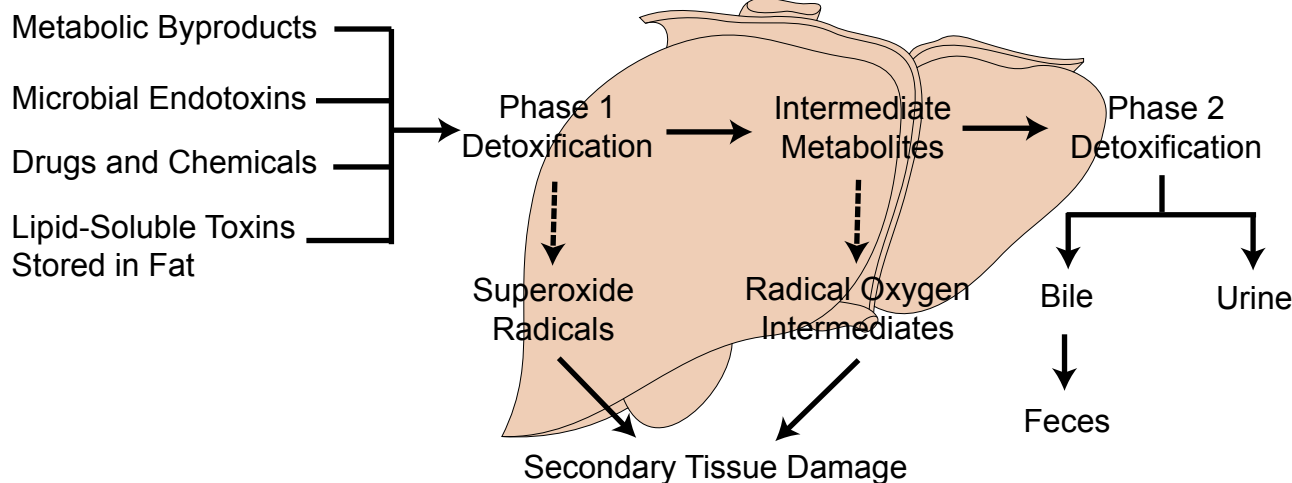
The process the liver uses to eliminate these toxins is illustrated below. The toxins are taken through a two-step detoxification process. In *Phase 1 Detoxification*, the body uses 50 different enzymes that are capable of creating an electrical charge on various kinds of toxins. This is done by adding or removing electrons from the toxin, giving it an electrical charge. This prepares the toxin so it can be attached to various nutritional substances in Phase 2. *Phase 2 Detoxification* makes the toxin water soluble and capable of being flushed from the body. Most toxins are taken to the kidneys and eliminated in the urine. Some toxins with larger molecules are dumped into the bile where they enter the colon, get bound to fiber and then carried out of the body.

### Symptoms of Sluggish Phase 1 Detoxification

So, how do you tell if your detoxification systems need help? Well, like anything else that isn’t working properly, the body has subtle clues that tell you your liver may need help detoxifying. First of all, if it takes a long time for the effects of pain medication (like getting shots at the dentist) to wear off, that’s a sign you have sluggish detoxification. The same thing holds true for alcohol, caffeine or any other chemical (natural or otherwise) you might take into the body. When your detoxification is sluggish, the effect of these substances is long-lasting. Someone with great liver detoxification systems gets over this stuff quite quickly.

After studying this, it is clear to me that my liver detoxification isn’t that great. When I go to the dentist, I can have a “yucky” feeling for several days from the pain shot. Alcohol

Continued on Next Page



and caffeine can also leave me with bad feelings that don't go away easily.

Fortunately, I've learned that if I take Milk Thistle Combo and SAM-e before I go to the dentist and for a day or two afterwards, I no longer have that "yucky" feeling. These supplements speed up the liver detoxification process so that my body more rapidly degrades the foreign substances in the shot.

The symptoms I've previously associated with a congested liver are probably also signs of sluggish liver detoxification. These include: difficulty going to sleep at night, then waking up with a sort of groggy, "drugged" feeling. One may also experience a bloated and stuffy feeling under the right rib cage or readily experience light-headedness, dizziness or headaches when you smell chemicals. Low thyroid and insulin resistance will also inhibit detoxification in the liver.

There are numerous supplements we can use to enhance Phase 1 detoxification systems. Milk Thistle Combination is one of these. B-Complex vitamins and Citrus Bioflavonoids with Vitamin C will also enhance Phase 1. Other good Phase 1 enhancers include Enviro-Detox, the Tiao He Cleanse and Free Amino Acids.

### Symptoms of Sluggish Phase 2 Detoxification

All of the above symptoms tend to show problems with detoxification in general, but more specifically with Phase 1 Detoxification. However, sometimes Phase 1 works great, but Phase 2 does not. This can cause a different set of problems. Here's why.

As the diagram shows, the Phase 1 process produces superoxide radicals that can cause secondary tissue damage if there aren't enough free radical scavengers (antioxidants) present to protect the tissues. Also, between Phase 1 and Phase 2, the toxins have been processed into intermediate metabolites. These may also be radical oxygen intermediates (another form of free radicals) that can cause secondary tissue damage if they aren't neutralized by antioxidants.

From this, we can not only see the importance of antioxidants like Thai-Go, Alpha Lipoic Acid and N-Acetyl-Cysteine to the detoxification process, we can also begin to understand the phenomenon called the "healing crisis." In fact, after studying this material, I've come to believe that a healing crisis occurs when the body starts processing too many toxins and the Phase 2 enzyme systems can't keep up. This causes a build-up of reactive toxins which generate inflammation in the body, causing various disease-like symptoms. Symptoms of this problem include headaches, stomach pain, nausea, fatigue, dizziness and "brain fog" during detoxification, fasting or weight loss. Toxemia during pregnancy is also a sign of sluggish phase two detoxification.

People who are environmentally ill, typically have problems with Phase 2. So, when they are exposed to chemicals, the body processes them through Phase 1, creating intermediate compounds that produce even more inflammation than the original chemical. Problems with various aspects of Phase 2 have been noted in a variety of chronic and degenerative diseases as well, including: Alzheimer's, Parkinson's, hepatitis, arthritis, low thyroid and environmental illness.

There are also other factors which are known to inhibit detoxification. For example, drugs like antihistamines, benzodiazepines, vimetidine, ketoconazole and sulfaphenazole inhibit Phase One Detoxification. Harmful intestinal bacteria can also secrete toxins that inhibit Phase 1. Aging also slows it down. Compounds from foods and herbs can even inhibit Phase 1. These include: naringenin from grapefruit juice, quercetin from onions and compounds in herbs such as curcumin in turmeric, capsaicin in capsicum and eugenol in clove. Of course, this makes these useful remedies for a healing crisis because they would slow down Phase 1, allowing Phase 2 to catch-up.

Of course, even if you don't have any of the symptoms above, but are exposed to any kind of chemicals on a regular basis in your job, it would be wise to support your liver's ability to detoxify. Examples of people who may wish to consider regular liver support include dry cleaners, painters, construction workers, lab technicians, beauticians, people who handle agricultural chemicals (like farmers and landscapers) and carpet cleaners.

### Enhancing Phase 2 Detoxification

In Phase 2, the body attaches the toxin to another substance to process it for elimination. This process is called conjugation. There are six phases to the conjugation processes. When the body uses amino acids as conjugates, the process is called acylation. Attaching toxins to sugars is called glucuronidation. When glutathione is used as the conjugating substance, the process is called glutathione conjugation. Methylation attaches toxins to methionine, sulfation attaches them to sulfur and acetylation attaches them to the compound acetyl Co-A.

Here's a description of each of these processes and suggestions on how to enhance them.

#### Acylation

In acylation, toxins are attached to amino acids, especially glycine. A low protein diet can inhibit acylation. When acylation is disturbed, it decreases bile production, which results in the poor assimilation of fats and fat soluble vitamins. Acylation detoxifies compounds like benzoate, aspirin and toluene (a widely used industrial solvent). People with hepatitis, chronic arthritis, low thyroid, excessive chemical exposure or toxemia in pregnancy often have problems with acylation. Acylation can be enhanced

by alkalizing the pH and taking the amino acid glycine, which is found in Free Amino Acids and Super Algae.

### Glucuronidation

Glucuronic acid is a metabolite of glucose that can be attached to toxins. This pathway is used as a back-up for sulfation or glycination. It is used to eliminate chemical and bacterial toxins, excess steroidal hormones (like estrogen), toxins from fungal infections and a variety of chemical toxins such as nitrosamines, aromatic amines, alcohols and phenols. Supplements that can assist glucuronidation include L-glutamine, Magnesium Complex, Super Omega-3 EPA and B-Complex vitamins. Foods containing limonene (citrus peel, dill weed and caraway) can also enhance glucuronidation. Aspirin and probenecid will inhibit glucuronidation.

### Glutathione Conjugation

Attaching toxins to glutathione, one of the most important antioxidants in the body, helps to detoxify and eliminate poisons in the liver, lungs, intestines and kidneys. Glutathione helps the body get rid of a wide variety of chemical compounds including aromatic disulphides, paththalene and anthracene. Heavy metals inhibit the replenishment of glutathione.

Nutrients that help to raise glutathione levels include vitamin C, alpha-lipoic acid, raw whey protein, and the amino acids glutamine and methionine found in Free Amino Acids. Cruciferous vegetables (cauliflower, broccoli, brussels sprouts, etc.) are very helpful in enhancing glutathione. The same limonene containing foods that enhance glucuronidation will also enhance glutathione conjugation. This pathway can be inhibited by deficiencies of selenium, vitamin B2 and zinc.

Indole-3-Carbinol, a compound found in cruciferous vegetables, will also enhance glutathione conjugation. It helps break down estrogens, including the xenoestrogens (environmental estrogens) that contribute to breast, prostate and cervical cancer.

N-Acetyl-Cysteine is a precursor to glutathione, which enhances cellular detoxification and helps protect the liver and other tissues from damage by free radicals. N-Acetyl-Cysteine can be particularly helpful for chemical or heavy metal poisoning.

### Methylation

Methylation attaches toxins to the amino acid methionine. This process occurs in every cell of the body and helps the body get rid of excess hormones and neurotransmitters, including steroidal hormones like estrogen, adrenaline, dopamine, melatonin, histamine and serotonin. It also helps eliminate homocysteine, a compound associated with increased risk of

heart disease. A variety of chemicals (amines, phenols, etc.) are also eliminated through methylation.

Besides the amino acid methionine, methylation can be enhanced with B-vitamins (B6, B12, folic acid and choline), betaine (a compound from beets, which is also found in Protein Digestive Aid as betaine hydrochloric acid), magnesium and SAM-e. Magnesium is essential for the methylation enzyme. A folic acid or B12 deficiency will inhibit methylation.

SAM-e is a valuable supplement for liver detoxification as it also helps the body produce many methyl-based substances, including: carnitine, creatine phosphate (used in ATP energy production), epinephrine (adrenaline), phosphatidyl choline (a nutrient that protects the nerves). Because of this SAM-e may help a variety of liver diseases, inflammatory disorders, depression and elevated levels of homocysteine. It may also reduce intestinal inflammation and protect the brain against free radical damage.

### Sulfation

Sulfation eliminates toxins by attaching them to sulphate. This is the principle pathway for eliminating excess neurotransmitters, several drugs (including acetaminophen, some food additives and toxins from intestinal bacteria. It also removes many forms of environmental toxins. Reduced sulfation may be involved in Parkinson's disease, Alzheimer's disease and other nervous system disorders and in environmental illness.

Sulfation can be enhanced by amino acids like methionine and cysteine, taurine, glutathione (Free Amino Acids), MSM, garlic, onions and cruciferous vegetables. Red Yeast Rice aids sulfation. Vitamin B1 and B2, magnesium and molybdenum also aid sulfation, although excess molybdenum and excess B6 inhibit the sulfation process. Non-steroidal anti-inflammatory drugs inhibit sulfation. N-acetyl-cysteine (mentioned earlier) can also enhance sulfation.

### Acetylation

Acetylation involves attaching acetyl co-A to toxins for elimination. People who are chemically sensitive are usually slow acetylators. Slow acetylation enhances the toxicity of drugs because it prolongs their life span in the body. Acetylation is used to eliminate excess histamine, serotonin, sulfa drugs, PABA and chemicals like sulphur amides and hydranzines. Nutrients that enhance acetylation include: pantothenic acid, Vitamin C and the amino acid thiamine. Deficiencies of B2, B5 or C inhibit acetylation.

By enhancing liver detoxification, we can protect the body against many of the toxic compounds found in modern society. Obviously, the best defense is avoiding chemicals and eating a healthy diet, but supplementation can be used to enhance the body's capacity to eliminate specific toxins.



## Kimberly Balas' Clinician's Corner

# Elevated Bilirubin, Vaccine Detox, Sluggish Gallbladder and More...

### Elevated Bilirubin

*I have a client whose blood work showed a bilirubin reading of 4. I would appreciate any suggestions on what I could put her on to bring the count down. A friend gave her Red Yeast Rice and she thinks that is the cause of the elevated bilirubin.*

*Constance*

Bilirubin goes high when there is a problem fighting toxins. This increases the thymus gland's demand for globulin. This will then decrease the hemopoitic activity of the spleen putting it into a passive phase and consequently elevating the passive destruction of red blood cells.

To correct this problem, I would use Chlorophyll capsules, THIM-J and Enviro Detox here. I would also try adding some good fats because of their toxin-binding capacity.

### Vaccine Detox

*Do you have any other suggestions for a potentially MMR vaccine-damaged 16 month old besides Vaccine Detox and Omega-3 Essential fatty acids. She's quit talking, her motor skills are decreasing and she's extremely moody and clingy.*

*Angelica*

Besides what you mentioned, I would add Vitamin B-12 to help transport systems. You need to create an electrical charge on the inside of the cell to activate potassium. Chloride does this in an exchange with HCl. I would also add a homeopathic of potassium or small amounts of a potassium supplement to activate the release of toxins. With the Omega-3, you will have the fats to bind these toxins.

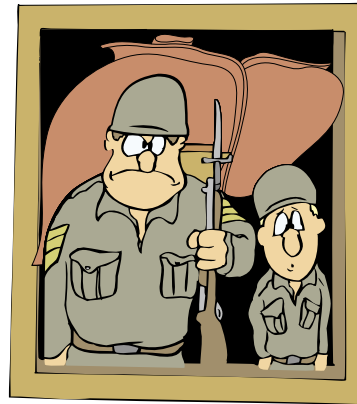
To get the chloride ions to shift, both Target Endurance or Gastro Health work well. Pick one. Also, don't forget how the MMR affects the nervous system. Because of this, I would keep the child on liquid Stress-J for a while, too.

### Sluggish Gallbladder

*I had a walk-in customer yesterday, a man, 50ish, not over weight, who said that he was just told that he has a non-functioning gallbladder. He said the test the doctor had run registered zero. He had a gallbladder attack about a month ago and is experiencing some discomfort from time to time. He said they found no stones. Would the gallbladder flush do any good since he has no stones? Could it possibly make the problem worse? What would you recommend, Hi-Lipase and Gallbladder Formula??*

*Toni*

## Defend Your Body From Harmful Chemicals—Support Your Liver!



This month's Herbal Hour, *The Clean Liver*, will show you how to protect your body against the harmful chemicals in modern society. It will also teach you about different nutrients and supplements that can support the process of detoxifying your body.

**To order go to [www.treelite.com](http://www.treelite.com)  
or call 800-416-2887**

I would support the spleen with PS II and then use some of the Gallbladder Formula. Herbs that help stimulate the flow of bile from the gallbladder are called chologogues and include barberry, Oregon grape, milk thistle, burdock, dandelion and blessed thistle (besides the Gallbladder Formula.)

Most people think PS II is just for prostate problems, but you have to go by the ingredients and not just what's on the label. It also works on a "damp spleen" problem. Customers won't know what the acronyms stand for unless you tell them. That is why I loved having the acronyms we had before they changed to the new product names. For instance, I have many men on C-X and they won't think it's just for women unless you tell them it is.

Also, the medical community is now labeling a sluggish gall bladder as non-functioning. My response to that is, "If your brain was sluggish, would you have that removed?"

### Morning Sickness

*Do you have any suggestions to help with morning sickness? My daughter is pregnant with her first baby and wants something to help minimize it when it hits.*

Becky

I had horrible morning sickness with my first child and nothing worked to help with it (red raspberry, ginger, etc.). I was also in a high stress, toxic environment, however, because I was working at the Cape around the rocket fuel. This last pregnancy, the only supplement I added was more iodine and I had no morning sickness at all.

### Glycerine Allergy

*I have a customer who has a glycerin allergy. Whenever she comes in contact with it her fingers and hands peel. She tried Liver Cleanse Formula for three months but it had no effect. Any ideas?*

T.M.

This is probably an adrenal issue. Adrenal Support and Yucca should help.

### Cholesterol

*A friend of mine is being told by a heart doctor (a friend) and his brother (a medical doctor) to go back on lipitor—maybe for life. He would rather not. He used NSP products to wean off Lipitor (his total cholesterol was 175 at time). He is*

*a blood type B, works out daily, eats organic food and juices, has not had a drink in 6 months and says he leads a stressless life. He loves his life. I would so appreciate some expertise advise so that we can both understand if there are concerns*

AST 20	BUN 15
ALT 23	Creatinine 1.2
Alk Phos 45	Glucose, fasting 94
Tot Bilirubin .7	Calcium 9.1
Direct Bilirubin .1	CPK 161
In-Direct Bilirubin .6	Cholesterol 223
Direct LDL (F) 163	Triglycerides 88
Sodium 141	HDL 46
Potassium 4.4	VLDL (calculated) 18
Chloride 108	Cholest/HDL Ratio 4.85
CO2 25	

*from any of the numbers in the blood test below. The test was run by the Heart Center of Nevada.*

*I have watched the Cholesterol Herbal Hour many times and have the Cholesterol booklet and Sunshine Sharing for him. Still, I would like to have your take on his blood work. Your Biochem Class is on my list of classes I would like to take.*

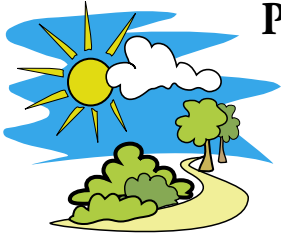
Victoria

Cholesterol is *always* a symptom, never a cause of anything. His pattern suggests he has problems with inflammation and hyperinsulinemia. These are driving the cholesterol problem. I would look at putting him on a bit of Pro-G-Yam cream and working on his transportation issues with Cellular Energy.

For the inflammation, I would start with IF Relief. You could also induce a bit of a cortisol response from the adrenals by using a large amount of Adrenal Support for three days and then reducing the dose.

Kimberly Balas is a board certified naturopath and clinical nutritionist. She is currently head of the research department and a certified instructor for all Tree of Light courses. She is available for consultations by phone or at her Wyoming office. For more information on scheduling a consult please phone 307-277-2466.





## Parting Thoughts from “The Herb Guy”

# Environmental Toxicity: Health Problem of the 21st Century

Never before in human history has any group of people been exposed to more chemicals than those of us living in Western civilization at the beginning of the 21st century. Of course, people have always been exposed to toxins of some sort or another. There are, after all, naturally occurring toxins in plants, water and soil. Microbes, parasites and even our own cells produce toxic compounds. That’s why the body is equipped with ways to break down and eliminate these toxins.

The problem in today’s world is the incredible number of toxins we’re exposed to on a daily basis. The wonders of modern chemistry, which make possible much of our technology, also have a dark side. When these chemicals enter our body, they must be processed by our internal detoxification systems and eliminated. Of course, these chemicals are tested for safety, right? In many cases, yes. However, there is one major flaw with our safety testing.

As I mentioned, the body is equipped to break down a certain amount of chemical compounds, a process which requires vitamins, minerals and other nutrients. Compounds are usually tested one at a time on well-nourished laboratory animals. What happens when the same chemicals get combined with other chemicals and fed to nutrient-deficient human beings? The answer is, we get lots of strange chronic and degenerative diseases such as the ones listed below.

This is our major health concern for the 21st century.

### Illnesses That May Involve Environmental Toxins

ADHD	Fatigue
Allergies	Kidney Diseases
Alzheimer’s	Learning Disabilities
Asthma	Lupus
Autism	Memory Loss,
Autoimmune Disorders	Mental Retardation
Birth Defects	Multiple Sclerosis
Cardiovascular Disease	Neurological Disorders
Cancer	Obesity
Chronic Headaches	Psoriasis
Chronic Fatigue	Skin Disorders
Dementia	Parkinson’s
Eczema	Rashes

Our job is really two-fold. First we need to help the body detoxify from exposure to these chemicals and secondly it’s our responsibility to avoid them as much as possible. For instance, we can avoid pesticides, herbicides, food additives and other chemicals by buying natural foods, preferably organic, and washing produce before we eat it. Also, try to find natural ways to deal with pests and weeds in the yard to avoid putting these chemicals in your personal environment.

We can also be aware of the problem of indoor pollution resulting from chemicals added to modern carpets and fabrics, paints, building materials, and household cleaning supplies. Having houseplants and airing out the house by opening windows whenever possible really helps here. It’s also wise to switch from toxic cleaning products to non-toxic products like Nature’s Fresh, Sunshine Concentrate, essential oils, baking soda, vinegar, etc.

We can avoid chemicals in water by having a Nature’s Spring Reverse Osmosis unit to purify our drinking water. We can also put carbon filters on showers to reduce chemical exposure. Where air pollution is a serious problem, indoor air filters can also help.

Personal care products are another source of chemicals. Use the most natural cosmetics, deodorants, lotions, shampoos, and so forth that you can find.

I don’t like to see people become paranoid about this problem. (Remember the body can handle a certain amount of chemical toxicity.) But, when you minimize your exposure to these pollutants and chemicals, the liver and other detoxification systems don’t have to work as hard to keep you healthy. Of course, eating healthy also gives them more raw materials to work with. Keep in mind that small changes that avoid chemicals wherever possible add up to big improvements in your health.

**Steven Horne is a Registered Herbalist (AHG) and past president of the American Herbalists Guild. Founder of Tree of Light Publishing, he is the author of many books, courses, and videos on natural healing. He is available for consults at ABC Herbs in St. George, UT. For more information call 435-627-1682 or go to [www.steven-horne.com](http://www.steven-horne.com).**

